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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. SERIAL NO. : 10/566,625
APPLICANTS : Klaus, et al.
FILING DATE : 30 January 2006
GROUP ART UNIT : Unassigned
EXAMINER : Unassigned
DOCKET NO. : FP0617 US
TITLE : INHIBITORS OF 2-OXOGLUTARATE DIOXYGENASE AS GAMMA GLOBIN INDUCERS

Commissioner for Patents
PO Box 1451
Alexandria VA 22313-1450

TRANSMITTAL

The following items accompany this Transmittal:

1. Return Receipt Postcard.
2. Supplemental Information Disclosure Statement (2 pages)(in duplicate)
3. PTO/SB/08A (5 pages)
4. References (44)

Applicants claim small entity status under 37 C.F.R. 1.27.

Please call Applicants' representative at 650.866.7265 with any questions regarding this communication or the above-referenced application. The Commissioner is hereby authorized to charge any necessary fees to Deposit Account No. 50-0811, referencing Docket No. FP00617 US. This form is enclosed in duplicate.

Respectfully submitted,

Date: 12 April 2006

By:



Christopher Turner, Ph.D.
Reg. No. 45,167

FIBROGEN, INC.
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Name: Michael Moores Signature: 



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INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. 1.97(b)

Sir:

Pursuant to 37 C.F.R. 1.56, 1.97, and 1.98, Applicants wish to call to the attention of the Examiner the enclosed "Information Disclosure Statement By Applicant" (Form PTO/SB/08A). Applicants reserve the right to antedate any reference in accordance with standard procedure. In accordance with 37 CFR 1.98(a)(2)(ii), copies of any issued U.S. patents or published U.S. patent applications are not enclosed.

Citation of the documents is not to be construed as an admission that the documents are necessarily prior art with respect to the present application. In addition, this submission is understood to complement the results of the Examiner's own independent search. Citation of the documents shall not be construed as a representation that a search has been made or that the cited items are inclusive of all the relevant and material citations that may be available publicly. Any NCBI or other report included on the attached list may not have an accurate date for prior art purposes. Some of the documents may have markings thereon. No significance is meant to be

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Name: Michael Moores

Signature:

Klaus, et al.

Supplemental Information Disclosure Statement

attached to the markings. Applicants respectfully request that the cited documents be considered by the Examiner and that an initialed copy of the Form PTO/SB/08A be returned to Applicants.

If there are any questions regarding this communication, please call the undersigned at 650-866-7265.

Applicants believe that no fee is due in this communication since it is being filed within three months of the filing date, or prior to the receipt of the first office action on the merits. If, however, the Commissioner determines that a fee is due, authorization is hereby given to charge the total of any such fee to Deposit Account No. 50-0811, referencing Docket No. FP0617 US. This form is enclosed in duplicate.

Respectfully submitted,

Date: 12 April 2006



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Substitute for form 1449/PTO				Complete if Known	
				Application Number	10/566,625
				Filing Date	30 January 2006
				First Named Inventor	Klaus, Stephen J.
				Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	2	of	5	Attorney Docket Number	FP0617 US

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	CA	ADDAE, S., et al., "Survival of Patients With Sickle Cell Anemia Living at High Altitude," South Med J, 1990, Vol. 83, No. 4, p. 487.			
	CB	AL-KHATTI, A., et al., "Erythropoietin Stimulates F-Reticulocyte Formation in Sickle Cell Anemia," Trans. Assoc. Am. Physicians, 1988, Vol. 101, pp. 54-61.			
	CC	BARD, Harry, et al., "Hypoxemia and Increased Fetal Hemoglobin Synthesis," J Pediatrics, 1994, Vol. 124, No. 6, pp. 941-943.			
	CD	BICKEL, Martin, et al., "Selective Inhibition of Hepatic Collagen Accumulation in Experimental Liver Fibrosis in Rats by a New Prolyl 4-Hydroxylase Inhibitor," Hepatology, 1998, Vol. 28, No. 2, pp. 404-411.			
	CE	BLAU, Anthony, et al., "Fetal Hemoglobin Induction With Butyric Acid: Efficacy and Toxicity," Blood, 1993, Vol. 81, No. 2, pp. 529-537.			
	CF	CHARACHE, Samuel, et al., "Hydroxyurea-Induced Augmentation of Fetal Hemoglobin Production in Patients With Sickle Cell Anemia," Blood, 1987, Vol. 69, No. 1, pp. 109-116.			
	CG	CHARACHE, Samuel, et al., "Effect of Hydroxyurea on the Frequency of Painful Crises in Sickle Cell Anemia," N Engl J Med, 1995, Vol. 332, No. 20, pp. 1317-1322.			
	CH	COKIC, Vladan P., et al., "Hydroxyurea Induces Fetal Hemoglobin by the Nitric Oxide-Dependent Activation of Soluble Guanylyl Cyclase," J Clin Invest, 2003, Vol. 111, No. 2, pp. 231-239.			
	CI	CONSTANTOULAKIS, P., et al., "On the Induction of Fetal Hemoglobin by Butyrates: In Vivo and In Vitro Studies With Sodium Butyrate and Comparison of Combination Treatments With 5-AzaC and AraC," Blood, 1989, Vol. 74, No. 6, pp. 1963-1971			
	CJ	DESIMONE, Joseph, et al., "Stimulation of Fetal Hemoglobin Synthesis in Baboons by Hemolysis and Hypoxia," Proc. Natl. Acad. Sci. USA, 1978, Vol. 75, No. 6, pp. 2937-2940.			

Examiner Signature		Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:
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	CK	DESIMONE, Joseph, et al., "Maintenance of Fetal Hemoglobin (HbF) Elevations in the Baboon by Prolonged Erythropoietic Stress," Blood, 1982, Vol. 60, No. 2, pp. 519-523.				
	CL	DESIMONE, Joseph, et al., "Maintenance of Elevated Fetal Hemoglobin Levels by Decitabine During Dose Interval Treatment of Sickle Cell Anemia," Blood, 2002, Vol. 99, No. 11, pp. 3905-3908.				
	CM	FIBACH, Eitan, et al., "Enhanced Fetal Hemoglobin Production by Phenylacetate and 4-Phenylbutyrate in Erythroid Precursors Derived From Normal Donors and Patients With Sickle Cell Anemia and β-Thalassemia," Blood, 1993, Vol. 82, No. 7, pp. 2203-2209.				
	CN	FIBACH, Eitan, et al., "Mithramycin Induces Fetal Hemoglobin Production in Normal and Thalassemic Human Erythroid Precursor Cells," Blood, 2003, Vol. 102, No. 4, pp. 1276-1281.				
	CO	FRANKLIN, Trevor J., et al., "Approaches to the Design of Anti-Fibrotic Drugs," Biochem Soc Trans, 1991, Vol. 19, pp. 812-815.				
	CP	FRANKLIN, Trevor J., et al., "Inhibition of Prolyl 4-Hydroxylase In Vitro and In Vivo by Members of a Novel Series of Phenanthrolinones," Biochem J, 2001, Vol. 353, pp. 333-338.				
	CQ	FRIEDMAN, Lisa, et al., "Prolyl 4-Hydroxylase is Required for Viability and Morphogenesis in Caenorhabditis elegans," PNAS, 2000, Vol. 97, No. 9, pp. 4736-4741.				
	CR	GABBIANELLI, Marco, et al., "Granulocyte-Macrophage Colony-Stimulating Factor Reactivates Fetal Hemoglobin Synthesis in Erythroblast Clones From Normal Adults," Blood, 1989, Vol. 74, No. 8, pp. 2657-2667.				
	CS	GABBIANELLI, Marco, et al., "Hemoglobin Switching in Unicellular Erythroid Culture of Sibling Erythroid Burst-Forming Units: Kit Ligand Induces a Dose-Dependent Fetal Hemoglobin Reactivation Potentiated by Sodium Butyrate," Blood, 2000, Vol. 95, No. 11, pp. 3555-3561				
	CT	JIANG, Jinjie, et al., "In Vivo Production of Nitric Oxide in Rats After Administration of Hydroxyurea," Mol Pharmacol, 1997, Vol. 52, pp. 1081-1086				

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	CU	KIVIRIKKO, Kari I., et al., "Prolyl 4- Hydroxylases and Their Protein Disulfide Isomerase Subunit," <i>Matrix Biol</i> , 1997, Vol. 16, pp. 357-368.				
	CV	LETVIN, Norman L., et al., "Augmentation of Fetal-Hemoglobin Production in Anemic Monkeys by Hydroxyurea," <i>N Engl J Med</i> , 1984, Vol. 310, No. 14, pp. 869-873.				
	CW	LEY, Timothy J., et al., "Induction of Hemoglobin F Synthesis in Patients With β- Thalassemia," <i>Annu Rev Med</i> , 1985, Vol. 36, pp. 485-498.				
	CX	LEY, Timothy J., et al., "5-Azacytidine Selectively Increases γ-globin Synthesis in a Patient With β+ Thalassemia," <i>N Engl J Med</i> , 1982, Vol. 307, No. 24, pp. 1469-1475.				
	CY	MAJAMAA, Kari, et al., "The 2-Oxoglutarate Binding Site of Prolyl 4-Hydroxylase," <i>Eur J Biochem</i> , 1984, Vol. 138, pp. 239-245.				
	CZ	MAJAMAA, Kari, et al., "Differences Between Collagen Hydroxylases and 2-Oxoglutarate Dehydrogenase in Their Inhibition by Structural Analogues of 2-Oxyglutarate," <i>Biochem J</i> , 1985, Vol. 229, pp. 127-133.				
	CAA	MIGLIACCIO, Anna R., et al., "Influence of Recombinant Hematopoietin and of Fetal Bovine Serum on the Globin Synthetic Pattern of Human BFUe," <i>Blood</i> , 1990, Vol. 76, No. 6, pp. 1150-1157.				
	CBB	MILLER, Barbara A., et al., "High Fetal Hemoglobin Production in Sickle Cell Anemia in the Eastern Province of Saudi Arabia is Genetically Determined," <i>Blood</i> , 1986, Vol. 67, No. 5, pp. 1404-1410.				
	CCC	MILLER, Barbara A., et al., "Influence of Steel Factor on Hemoglobin Synthesis in Sickle Cell Disease," <i>Blood</i> , 1992, Vol. 79, No. 7, pp. 1861-1868.				
	CDD	PARTINGTON, G.A., et al., "Human Globin Gene Transcription in Injected Xenopus Oocytes: Enhancement by Sodium Butyrate," <i>EMBO J</i> , 1984, Vol. 3, No. 12, pp. 2787-2792.				

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	CEE	PEMBREY, M.E., et al., "Fetal Haemoglobin Production and the Sickle Gene in the Oases of Eastern Saudi Arabia," Br J Haematology, 1978, Vol. 40, pp. 415-429.			
	CFF	PERRINE, Susan P., et al., "Butyric Acid Analogues Augment γ -Globin Gene Expression in Neonatal Erythroid Progenitors," Biochem Biophys Res Comm, 1987, Vol. 148, No. 2, pp. 694-700.			
	CGG	PERRINE, Susan P., et al., "Butyrate Infusions in the Ovine Fetus Delay the Biologic Clock for Globin Gene Switching," Proc. Natl. Acad. Sci. USA, 1988, Vol. 85, pp. 8540-8542.			
	CHH	PERRINE, Susan P., et al., "A Short-Term Trial of Butyrate to Stimulate Fetal-Globin-Gene Expression in the β -Globin Disorders," N Engl J Med, 1993, Vol. 328, No. 2, pp. 81-86.			
	CII	RODGERS, Griffin P., et al., "Augmentation by Erythropoietin of the Fetal-Hemoglobin Response to Hydroxyurea in Sickle Cell Disease," N Engl J Med, 1993, Vol. 328, No. 2, pp. 73-80.			
	CJJ	SAFAYA, S., et al., "Augmentation of γ -Globin Gene Promoter Activity by Carboxylic Acids and Components of the Human β -Globin Locus Control Region," Blood, 1994, Vol. 84, No. 11, pp. 3929-3935.			
	CKK	STAMATOYANNOPOULUS, George, et al., "Fetal-Hemoglobin Induction by Acetate, a Product of Butyrate Catabolism," Blood, 1994, Vol. 84, No. 9, pp. 3198-3204.			
	CLL	WEINBERG, R.S., et al., "Low Oxygen Enhances Sickled and Normal Erythropoiesis and Fetal Hemoglobin Synthesis In Vitro," Hemoglobin, 1995, Vol. 19, No. 5, pp. 263-275.			
	CMM	WELFORD, Richard W.D., et al., "The Selectivity and Inhibition of AlkB," J Bio Chem, 2003, Vol. 278, No. 12, pp. 10157-10161.			
	CNN	WOOD, W.G., et al., "Developmental Genetics of the Human Haemoglobins," Biochem J., 1983, Vol. 215, pp. 1-10.			

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